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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,235	07/15/2003	Qin Kong	2211.001	1193

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EXAMINER

WONG, ALBERT KANG

ART UNIT	PAPER NUMBER
2635	

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/621,235

Applicant(s)

KONG ET AL.

Examiner

Albert K Wong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 13-17, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 10-12 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/15/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. This Office action is in response to the application filed July 15, 2003. Claims 1-20 are pending.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-9, 13-17, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelvin 6,832,251. It should be noted that while specific passages have been cited by the Examiner this should not be construed to be the only teaching or suggestion for the claimed limitations.

Regarding claim 1, Gelvin teaches a system with sensors and actuators which are wirelessly connected into a network with a main control unit. Although most of the reference is directed toward a military system, the reference teaches that the system is not limited to the best mode. Cols. 9, 64, and 75 teaches that sensors may be used on vehicles as well as a variety of equipment. Col. 2 teaches the implementation on board a Navy ship. The smart relay is generally shown as item 1002, which is a bi-directional communication device. The main control unit is shown as item 1004. Also, see Figure 16, which shows an example of a smart relay. Nodes may also serve as a main control unit. Col. 10, lines 55-65 teaches that nodes may include actuators. Col. 65 teaches an application where vibration is monitored with a corresponding disablement of equipment when an abnormal condition is detected. Gelvin does not explicitly state the establishment of a user Id by the main unit. However, Gelvin teaches that the network is plug-and-play and self-configuring. See cols. 12, 26, and 44. It would have been

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obvious to one of ordinary skill in the art that a self-configuring, wireless network would have means for establishing Ids for the purpose of determining which nodes are a part of the network. Further, although the various elements of the system are not described in one system as claimed, they clearly suggest that the elements are intended to be combined to perform the function of monitoring and control in a variety of environments.

Regarding claim 2, Gelvin teaches that nodes include RF transmitters.

Regarding claim 3, the frequency of the transmitter is an obvious design choice since the frequency of transmission is not critical to the invention.

Regarding claim 4, while Gelvin does not teach an infrared transmitter, it is commonly known in the art that wireless communication and control includes infrared. It would have been obvious to transmit data using infrared means. An infrared transmitter provides the advantage of low cost at the expense of transmission range.

Regarding claims 5 and 6, Gelvin teaches that the nodes contain sensors that transmit data to a central monitor via RF transmitters.

Regarding claim 7, see claim 3 above.

Regarding claim 8, see claim 4 above.

Regarding claim 9, see Figure 52. Also, note that the reference teaches that nodes that function like a main control unit can store and forward data to other devices.

Regarding claims 13-14 and 16, see col. 68, which describes a two-way paging network or a cellular system.

Regarding claim 15, the use of a particular paging protocol is an obvious design choice since the selection of the paging network would determine the protocol. ReFlex is a conventional two-way paging protocol from Motorola.

Regarding claim 17, relays are typically open or closed based on an input signal. Since the node in Gelvin is controlled by a sent signal that activates an actuator, it would have been obvious to use a conventional relay for its known function.

Regarding claim 19, see Figure 16, which includes sensing capability. Earlier cited passages teach the sensing of vibration and other parameters. The sensor taught is analogue. Thus, the value must be converted into a digital value since the rest of the system is digital.

Regarding claim 20, since the eventual output of the sensor is a digital value, this is considered a digital sensor. As stated above, one parameter sensed in vibration.

4. Claims 10-12 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited but not applied art is considered pertinent. They teach other examples of wireless monitoring systems. Applicant should consider all cited references prior to preparing a response.
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert K Wong whose telephone number is 571-272-3057. The examiner can normally be reached on M-Th.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 703-305-4704. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Albert K. Wong
January 18, 2005